UniVerse Release Notes

Part No. 72-9029

Release 9.5.1
IBM RISC System/6000

Versions:
SVUV-029, SVUV-093, SVUV-115, SVUV-301, EPUV-029, EPUV-093, EPUV-115, & EPUV-301

Copyright © 1999 Ardent Software, Inc.
50 Washington Street, Westboro, MA 01581
All rights reserved.

Revision 1.2 June 1999

NOTICE

Ardent Software, Inc., makes no warranty of any kind with regard to the material contained in this manual, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

The information contained in this manual is subject to change without notice.

This manual contains proprietary information that is protected by copyright. All rights are reserved. It may not be photocopied, reproduced, or translated, in whole or in part, without the prior express written consent of Ardent Software, Inc.

Copyright © 1999 Ardent Software, Inc. All rights reserved.

Trademarks

UniVerse is a registered trademark of Ardent Software, Inc. Uni Call Interface, UniVerse Data Replication, UniVerse NLS, UniVerse ODBC, UniObjects, UV/Net, UV/Term, and Ardent are trademarks of Ardent Software, Inc.

Microsoft is a registered trademark of Microsoft Corporation. Open Database Connectivity, Windows, and Windows NT are trademarks of Microsoft Corporation.

UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company, Ltd.

All other company or product names mentioned are trademarks or registered trademarks of their respective trademark holders.

This document is printed on recycled paper.

Table of Contents

Preface

Organization of This Document 1
Operating System Requirements 1
NFS-Mounted File Systems 1
GTARS File 2
Documentation 2
    UniVerse NLS Guide 3
Using UniVerse Online Help 8
Technical Support 8
Release 9.5.1 Information and Restrictions 9
    64-Bit File Systems 9
    SQL CALL Procedures 9
    SQL Client Extender 10
    Differences Between PI/open and UniVerse 10
    PI/open to UniVerse Account Conversion Problem 14
    ISOMODE 2 14
    CORE Command on IBM RS/6000 15
    UVbackup and UVrestore Warnings 15
    UniVerse Lock Table Size 15
    UniVerse Disk Space Requirements 15

Section 1. Quick Installation Procedure

Section 2. Power-up and System Startup

UniVerse Interaction with UNIX Configuration 2-1

Section 3. Installing UniVerse

The UniVerse Installation Procedure 3-2
    Overview 3-2

Installing UniVerse 3-5
Examining the Load and Installation Scripts 3-10
uv.load Options 3-10
System Administration Menus 3-11

Section 4. System-Specific Information

MT0 Definition in the &DEVICE& File 4-1
CD-ROM Definition in the &DEVICE& File 4-2
UniVerse CORE Command 4-2
Tape-Related GTARs 4-2
System-Specific GTARs at Release 9.5.1 4-3
UniVerse GTARs at Release 9.5.1 4-3

Preface

The preface contains the following information:

- Operating system release level requirements
- NFS-mounted file systems
- Online GTARS database
- Documentation updates
- UniVerse technical support
- Release information and restrictions

Organization of This Document

This document contains the following information:

Section 1 provides an abbreviated installation procedure for experienced users. See Sections 2 and 3 for complete instructions.

Section 2 has system initialization and configuration instructions for UNIX.

Section 3 contains detailed installation instructions for UniVerse software.

Section 4 contains information specific to your system.

Operating System Requirements

Release 9.5.1 of UniVerse for IBM RISC System/6000 systems requires AIX Release 4.3.1 or AIX Release 4.3.2.

If your UNIX is at an earlier release, it is very unlikely that 9.5.1 of UniVerse will execute correctly. If your UNIX is at a higher release, check with your technical support provider before assuming that 9.5.1 of UniVerse will execute correctly.

NFS-Mounted File Systems

At earlier releases, if you ran UniVerse on multiple systems in a networked environment and wanted to use NFS-mounted file systems to access UniVerse files remotely, you must also have had the optional product UV/Net installed. If you did not have UV/Net installed on the system where the file physically resides,

UniVerse would not let you access files on an NFS-mounted file system. UV/Net ensured that UniVerse file concurrency control would be performed on the system where the file physically resides and file integrity would be maintained.

A new UniVerse configurable parameter (ALLOWNFS) has been added to UniVerse. When set, the new parameter allows users to access files on NFS-mounted file systems without UV/Net. This could be done when concurrency control is not an issue, such as when UniVerse is not actually running on the remote system.

If the ALLOWNFS parameter is not set, UV/Net will be required in order to access files on NFS-mounted partitions.

GTARS File

The UV account has a UniVerse file called GTARS which contains both the fixed and open bugs associated with the current release of UniVerse. You can use all the facilities of RetrieVe to produce reports of these GTARs. The VOC file of the UV account contains a menu that you can use to display the following on your terminal:

- All closed GTARs incorporated in the current release
- All GTARs describing unfixed problems in the current release
- All GTARs submitted under your customer number
- All closed GTARs submitted under your customer number
- All open GTARs submitted under your customer number

To invoke this menu, change directories to the UV account directory and enter the UniVerse environment by using the *uv* command. This brings you into the UniVerse System Administration menu system. Press the Esc key to exit the menu system and return to the UniVerse command prompt. Enter the command `LIST.GTARS` to display the GTAR menu. If you do not know your customer number, please contact your technical support provider.

Documentation

The 9.5.1C patch release includes a new UniVerse Online Library on CD-ROM. This is a completely updated documentation set for UniVerse 9.5.1C. It supersedes the two previous UniVerse Online Libraries for Release 9.5.1 and Release 9.5.1A.

These release notes can be used in conjunction with the UniVerse documentation described in the *Ardent Technical Publications Catalog*. The following sections

describe updates to the documentation that are applicable for Releases 9.5.1 and later.

UniVerse NLS Guide

The following sections supplement *UniVerse NLS Guide*.

- In NLS mode, if you create UniVerse files containing non-ASCII data, you will not be able to recognize that data if you turn NLS off.
- When spooling jobs from outside UniVerse using the *usp* command, the print job does not come from an NLS environment and no mapping occurs when the job reaches the printer.
- The BASIC EXCHANGE function is not NLS-aware and may not produce the results you expect when NLS is enabled.
- The installation of UniVerse overwrites the contents of the *uvconfig* file in the UV account directory. If NLS was installed before the reinstallation of UniVerse, all NLS configurable parameters are reset to their initial state. To avoid this, copy the *uvconfig* file before reinstalling UniVerse.
- You can move NLS map and locale definitions from one system to another. You do this as follows:
  1. Create a type 19 file in the UV account of the source system.
  2. Copy the definition records from the NLS database files to the type 19 file. For maps, these records come from the NLS.MAP.DESCS and NLS.MAP.TABLES files. For locales, these records come from the NLS.LC.TIME, NLS.LC.NUMERIC, NLS.LC.MONETARY, NLS.LC.CTYPE, and NLS.LC.COLLATE files. You may also need weight table information for your Collate conventions if you defined specific weight tables.
  3. Transfer the type 19 file to the target system.
  4. Copy the definitions back into the appropriate NLS files.
  5. Use NLS.ADMIN to build the maps and locales.
  6. Load the maps and locales into shared memory using the documented method for your operating system (UNIX or Windows NT).
- The BASIC compiler expects all $INCLUDE directives to contain pathnames in ASCII, like all other constructs in BASIC.
- The MCT conversion code capitalizes each word in a string, lowercasing the rest of the word. If you set up a CTYPE convention and define a char-

acter to be trimmable, if this character appears in the middle of a string it is not lowercased nor are the rest of the characters up to the next separator character. This is because the trimmable character is considered a separator (like <space>).

- If you are installing NLS on a system that has previously been running UniVerse without NLS, you need to use the NLS.UPDATE.ACCOUNT command. This command ensures that an account contains all of the correct VOC entries and converts relevant system files for NLS use, e.g., &SAVEDLISTS&. The command should be run in all user accounts and also in the UV account.

  When the command is run in the UV account, it asks you if you want to convert SQL catalog files to NLS format. If you are using SQL, answer **yes**. This lets you create schema, table, and column names containing multibyte characters. However, multibyte SQL identifiers are not supported at this release.

UVLANG Environment Variable

To set your initial UniVerse locale, use the UVLANG environment variable. When you start a UniVerse session, UniVerse retrieves the value of the UVLANG variable and checks to see if a locale of the specified name is loaded. If it is, it becomes your current locale.

Direct UniVerse connections (*uvsh*), telnet connections, and BCI connections are all affected by the UVLANG variable.

NLS Map for Windows NT Console

When you install UniVerse on Windows NT, be sure to set up the NLS map for the console correctly. The default is probably something like PC850 or MS1252; however, this may not be correct for your version of Windows NT. Choose an appropriate map, which may not be one of the PC*xxx* or MS*xxxx* maps. For example, for the Korean version of Windows NT you should use KSC5601.

If you cannot set the map correctly during installation, correct it later as follows:

1. Change directory to the UV account directory, e.g. D:\Ardent\UV
2. Decompile the console terminal definition:

   ```
   bin\uvtidc console > tmpfile
   ```

3. Use NOTEPAD to edit *tmpfile*. Change at80 and at81 to the name of the required NLS map and save the file.

4. Compile the console terminal definition:

```
bin\uvtic tmpfile
```

If the map is not set up correctly UniVerse commands that are run stand-alone or from UniVerse client/server products such as UniVerse Admin may not display messages correctly.

Multibyte NLS Maps and System Delimiters

NLS provides maps for a number of multibyte character sets such as Japanese, Chinese, and Korean. On their own these maps do not allow the UniVerse system delimiters to be used (which is also true of the single-byte maps). However, unlike the single-byte maps where it is possible to use the internal values of the system delimiters in the external character set, this is not possible with the multibyte maps because the system delimiters can be misinterpreted as lead bytes of multibyte characters. For this reason NLS provides versions of all the multibyte maps both with and without the UniVerse system delimiters. The maps provided are as follows:

Without System Delimiters	With System Delimiters
BIG5	BIG5+MARKS
GB2312	GB2312+MARKS
JIS-EUC+	JIS-EUC++MARKS
JIS-EUC	JIS-EUC+MARKS
JIS-EUC2+	JIS-EUC2++MARKS
JIS-EUC2	JIS-EUC2+MARKS
KSC5601	KSC5601+MARKS
PRIME-SHIFT-JIS	PRIME-SHIFT-JIS+MARKS
SHIFT-JIS	SHIFT-JIS+MARKS
TAU-SHIFT-JIS	TAU-SHIFT-JIS+MARKS

The UniVerse system delimiters are mapped into the following values for each character set:

Value (in hex)	System Delimiters
1A	Text mark
1C	Subvalue mark

Value (in hex)	System Delimiters
1D	Value mark
1E	Field mark
1F	Item mark

In addition, the null value is mapped to the hexadecimal value 19.

Multibyte Filenames, Record IDs, and Other Identifiers

At Release 9.5, UniVerse NLS does not support the following:

- Multibyte filenames, record IDs, or field names
- Multibyte UniVerse account names
- Multibyte SQL identifiers (schema names, table names, view names, etc.)

Code Page Configuration on Multibyte Windows NT

On Windows NT the code page detected by UniVerse client programs may not be the real code page in use. This information is returned by an operating system call and is outside of the client's control. The code page information is passed to the server, which looks it up in the NLS.CLIENT.MAPS file, part of the NLS database. If there is no entry in the file, a default is selected either from the NLS.CLIENT.MAPS file, if one exists, or from the NLSDEFSRVMAP configurable parameter in the *uvconfig* file. It should be clear from this that the server can select the wrong map for the client.

An example will illustrate. Suppose you are running on the Korean version of Windows NT. This returns the code page number 1252, though the real code page is 949. The client sends an identifier of WIN:1252 to the server. The server tries to find a record for WIN:1252. If it finds the entry that is shipped with UniVerse, this sets the NLS map to MS1252, which is wrong. You can do one of three things to resolve the problem:

- Change the WIN:1252 entry to point to the correct NLS map, for example:

```
Record id: WIN:1252
0001: Korean character set
0002: KSC5601+MARKS
```

- Delete the WIN:1252 entry and set the WIN:DEFAULT entry to point to the correct NLS map.
- Delete both WIN:1252 and WIN:DEFAULT entries and set the NLSDEFSRVMAP configurable parameter to the correct NLS map.

The first of these options is the most preferable.

Multiple NLS Shared Memory Segments on UNIX

NLS shared memory segments can be identified by a key of the format aceexxxx where *xxxx* is a four-digit number. You can see this by running the *ipcs* operating system command. Under normal circumstances there will be only one such segment when NLS is turned on.

However, there may be occasions when you see more than one segment. This happens if a *DBsetup* command is run while users are logged in to UniVerse. Every time *DBsetup* is run, a new NLS shared memory segment is created. The old segment will disappear as soon as the last user of that segment exits from UniVerse.

Known NLS Problems at Release 9.4

International Currency Symbol in DEFAULT Locale. The DEFAULT locale is built during the initial installation of NLS. This does not build the international currency symbol correctly. It will be displayed as USDSpace rather than USD (that is, USD followed by one space character). The problem has been raised as GTAR 21511.

This can be fixed as follows:

1. Change directory to the UV account directory.
2. Enter UniVerse.
3. Execute the following command:

   ```
   >ED NLS.LC.MONETARY DEFAULT
   ```

4. Change field 6 to USD , that is USD followed by one space character. Save the record.
5. Use the NLS.ADMIN tool to create a new locale where all of the categories are set to DEFAULT. Build the locale.
6. Shut down and restart UniVerse to load the new definition into shared memory.

CURR_SYMBOL, POS_SIGN and NEG_SIGN Must Be Unique. The CURR_SYMBOL, POS_SIGN and NEG_SIGN fields of a locale must all contain unique characters. If not, it is impossible to distinguish the sign from the currency symbol, meaning that an ICONV of currency values can fail. This problem has been raised as GTAR 21197.

BASIC Programs and Multibyte Filenames and record IDs. The verbs which allow you to compile, catalog and examine programs work only with ASCII filenames and record IDs. That is, you cannot create a program with a multibyte name in a file with an ASCII name, or a program with an ASCII name in a file with a multibyte name. The BASIC command will not compile the program and you will not be able to catalog it. Commands affected are:

BASIC	DELETE.CATALOG
CATALOG	VCATALOG
DECATALOG	

This problem has been raised as GTAR 21509.

***uvrestore* and Multibyte Characters.** Dynamic files are not restored properly from a full *uvbackup* if the dynamic file name contains multibyte characters and the dynamic file currently exists in the directory where the file is to be restored. Before attempting such a restore, delete the dynamic file from the account. The file will then be recreated properly by the *uvrestore* process. Additionally, if the NLS map on a type 1 file has been changed since the time of the full backup, the type 1 file must be deleted for the original NLS map to be restored properly. If the map has not changed, the warning messages printed will not stop the file from being restored properly.

Using UniVerse Online Help

UniVerse has a complete online help system. For details, refer to *UniVerse User Reference* or *UniVerse System Description.*

Technical Support

Ardent Technical Support Center numbers are operated between 8:00 a.m. and 8:00 p.m., Eastern Time. To reach the Center, simply dial 1-800-729-3553. A support representative will answer your call and you will be asked to supply your license serial number, UniVerse release level, and a description of the problem. If you reach the electronic mail box, please leave your name, phone number, time of call, license serial number, UniVerse revision level, and a brief description of the problem. A support representative will call you back shortly.

If calling from outside the United States, please dial (508) 366-3888 and request that your call be transferred to Technical Support.

You can also fax your request for assistance to the Technical Support fax number at (508) 389-8750.

Release 9.5.1 Information and Restrictions

For a description of the functional enhancements in Release 9.5.1, refer to the technical bulletin *What's New in UniVerse Release 9, Updated for Release 9.5.1* (74-0105).

The following sections describe information and restrictions pertaining to this release.

64-Bit File Systems

As of Release 9.5.1C, UniVerse supports 64-bit file systems. There is a new UniVerse configurable parameter, 64BIT_FILES, that lets you specify whether UniVerse uses 32-bit or 64-bit file systems. New options have been added to the following UniVerse commands:

- CREATE.FILE has two new options that let you override the current setting of the 64BIT_FILES parameter. The 64BIT option lets you create 64-bit files on a UniVerse system using 32-bit file systems. The 32BIT option lets you create 32-bit files on a UniVerse system using 64-bit file systems.
- RESIZE has two new options that let you override the current setting of the 64BIT_FILES parameter. The 64BIT option lets you resize a file to 64-bit on a UniVerse system using 32-bit file systems. The 32BIT option lets you resize a file to 32-bit on a UniVerse system using 64-bit file systems.
- FORMAT.CONV has a new -o (Old Style) option that lets you convert a 32-bit file created or resized on a UniVerse 9.5.1C or later system to the older 32-bit format used on Releases 7.3.1 through 9.5.1B.

The InterCall ic_fileinfo function does not support 64-bit files at Release 9.5.1C.

SQL CALL Procedures

A UniVerse Release 8.3.3 client can call a procedure on a UniVerse Release 9.3.1, 9.4.1, or 9.5.1 server with the restriction that no output parameters are returned.

Attempting to execute the SQL procedure CALL BUILD.INDEX *filename* ALL causes the process to hang. This is because the BUILD.INDEX utility spawns phantom processes which are illegal for an SQL procedure. The BUILD.INDEX process hangs because it waits on the successful completion of the phantom processes. (See also GTAR 19487.)

SQL Client Extender

The UniVerse SQL Client Extender layered product cannot be installed and will not function with UniVerse Release 9. If you are using this product, do not upgrade to Release 9 unless an alternative ODBC solution is available.

Differences Between PI/open and UniVerse

The following sections describe differences between PI/open and UniVerse that are in addition to those documented in *Moving to UniVerse from PI/open*. These differences may cause problems for users moving from PI/open to UniVerse.

SELECT SAVING. If you use the SAVING keyword with SELECT you may encounter problems if the item being saved consists of multiple fields. For example, suppose you have a file called TEST.FILE which contains records whose F1 field contains multiple values (values separated by value marks). If you execute the following sentences the number of records saved may not be what you expect; it depends on the number and size of the values involved:

```
LIST TEST.FILE SAVING EVAL "RAISE(F1)"
SAVE.LIST TEST.LIST
```

With a small number of values, TEST.LIST will contain an ID for every value in TEST.FILE. However, with a large number of values, some of the values will not be raised correctly, leading to a corrupt save list (see also GTAR 15940).

One suggested workaround is to create a new version of the SAVE.LIST command (e.g., SAVE.LIST2) along the following lines:

```
PA
HUSH ON
SAVE.LIST TEMP.NAME
DELETE &SAVEDLISTS& <I2,LIST NAME>>
ED &SAVEDLISTS& TEMP.NAME
DATA SAVE <<I2,LIST NAME>>
DATA QUIT
HUSH OFF
```

Order of Processing of Prompts in Paragraphs. If a prompt in a paragraph is preceded by the * comment symbol, the prompt may not appear in the same place in the output when the paragraph is executed in UniVerse. This may cause problems for some applications. Consider the following paragraph:

```
PA
DATE
* <<I2,Press RETURN to continue>>
```

In PI/open it gives the following output:

```
Tuesday, January 31, 1995 06:01 PM
Press RETURN to continue =
:
```

In UniVerse it gives the following output:

```
Press RETURN to continue=
Tuesday, January 31, 1995 06:02pm
>
```

However, if you remove the comment symbol in the UniVerse example, the ordering of the output is the same as in PI/open (see also GTAR 15942).

***terminfo* Definitions.** If you do not install the UniVerse terminal definitions, you may find that some display features of your terminal are not handled as you might expect. In this case UniVerse uses the version of the terminal definition supplied by the operating system, but it does not interpret all of the control sequences correctly. For example, on a Wyse 50, the HP-UX operating system definition for the clear function is \E*$<20>, but the UniVerse definition is ^Z. Both are valid, but when UniVerse attempts to use the system definition, it does not understand the $<20> syntax and sends the sequence as printable characters to the terminal, hence it appears in your output (see also GTAR 15943).

SELECT Does Not Support the NO.NULLS Keyword. The SELECT command does not support the NO.NULLS keyword. In PI/open the NO.NULLS keyword suppresses null field values. It is used when field values are extracted for a calculation, or to form a select list of values other than record IDs, in conjunction with the keywords SAVING, MAX, MIN, AVERAGE, and ENUM (see also GTAR 15945).

DISPLAY Does Not Support the : Option. The DISPLAY command, which can be executed from the UniVerse prompt, does not support the : option. In PI/open, if a : is appended to the display string, a newline character is not sent to the terminal at the end of the string. This means that the next display position starts immediately after the last character of the display string; in UniVerse the next display position is in column 1 of the next line down (see also GTAR 15946).

Pagination Does Not Support the Suppress Option. In PI/open, when output is being paginated on the screen, it is possible for the user to suppress it (i.e., skip to the end) by typing s in response to the `Press <RETURN> to continue...` prompt. This feature is not available in UniVerse (see also GTAR 15947).

Clearing Distributed Files. In PI/open it is possible to clear all parts of a distributed file by using the CLEAR.FILE command on the distributed file itself. This is not possible in UniVerse. Instead you must use the CLEAR.FILE command on each part file (see also GTAR 15948).

BASIC DEFFUN Statement. In UniVerse the BASIC compiler produces an error if you use the DEFFUN statement to define a function without first defining its arguments. The following example uses the DEFFUN statement twice: in the first case the compiler generates an error; in the second case, the arguments are defined before the function, and the syntax is accepted by the compiler (see also GTAR 15453):

```
DEFFUN MYFUNC1(MAT A)
DIM B(0)
B(0) = ''
DEFFUN MYFUNC2(MAT B)
END
```

Compilation output:

```
Compiling: Source = 'BP/DEFFUN.B', Object = 'BP.O/DEFFUN.B'
*
Array 'A' never dimensioned.
1 Errors detected, No Object Code Produced.
```

BASIC KEYIN Function. In a PI/open INFO/BASIC program, the KEYIN function normally returns the mapped values for system delimiters (unless you specified the PI/open RAW.INPUT compiler option) as shown in the following table:

Delimiter	ASCII Value	Mapping
Text mark	26	251
Subvalue mark	28	252
Value mark	29	253
Field mark	30	254
Item mark	31	255

In UniVerse, no mapping takes place, and the KEYIN function returns the ASCII values shown in the middle column.

BASIC $OPTIONS INFO.CONVERT. The INFO.CONVERT option is not supported in this release.

BASIC INPUT @ Statement. In a PIOPEN flavor compilation (i.e., $OPTION PIOPEN), or in programs that use the $OPTIONS INPUTAT statement, the screen position you specify is that of the input prompt, rather than the input field. That is, the input field begins one column to the right of the column you specify. Except in PIOPEN flavor, the INPUT @ statement does not currently provide an automatic carriage return when the specified number of characters have been entered into the field (see also GTAR 15767).

BASIC RETURN Statement. The UniVerse BASIC compiler produces a warning when the RETURN statement returns from an internal subroutine within a function. The warning does not affect the compiled code and may be ignored (see also GTAR 15447).

```
FUNCTION BETA
GOSUB INITIALIZE
*
*Main program code
*
 RETURN (CODE)
INITIALIZE:
*
* Internal subroutine code
*
 CODE = 0
 RETURN
END
```

Compilation output:

```
Compiling: Source = 'BP/FUNCTION.B', Object = 'BP.O/FUNCTION.B'
**
0018 RETURN
           ^
WARNING: no RETURN value specified, null used.
Compilation Complete
```

BASIC Variable Names. If you use a variable name in the format INCLUDE.*text*, as shown in the following example, the compiler produces an error (see also GTAR 15451):

```
 LOOP
  INPUT INCLUDE.VAR
  WHILE INCLUDE.VAR
 REPEAT
END
```

Compilation output:

```
Compiling: Source = 'BP/INCLUDE.B', Object = 'BP.O/INCLUDE.B'
0007          WHILE INCLUDE.VAR
                    ^
No VOC entry for INCLUDEd file ".VAR".
        ^
End of Line unexpected, Was expecting: Array Name, CALLable
Variable Name, DIMENSIONable Array Name, Variable name, New
variable name, Expression, "CREATE", "FLUSH", "GET",
"INPUTIF", "LOCATE", "LOCATEP", "LOCK", "MATREAD", "NOBUF",
"OPEN", "OPENPATH", "PROCREAD", "READ", "READBLK", "READNEXT",
"READSEQ", "READT", "READV", "REWIND", "SEEK", "uSEEK",
"TTYCTL", "WEOF", "WRITEBLK", "WRITESEQ", "WRITET", "FIND",
"FINDSTR", "GETLIST", "READLIST", "TTYGET", "TTYSET",
"uINPUT", "TRANSACTION", "OPENCHECK", "BSCAN", "RPC_CALL",
"WRITESEQF"
2 Errors detected, No Object Code Produced.
```

Terminal Width. In UniVerse, the default terminal width is set to 79 columns, and column 80 is reserved for a Return. If your program uses a terminal width of 80 columns, your reports may be listed vertically on UniVerse. If you try to avoid this by using the command TERM 80 to change the default setting, the reports are listed double spaced because both UniVerse and the terminal issue a Return at the end of each line. Currently, the only workaround is to reduce the terminal width to 79 columns (see also GTAR 15434).

PI/open to UniVerse Account Conversion Problem

Record IDs in NEWACC and VOC Files. If the ISYS NEWACC file or any of your PI/open accounts' VOC files hold record IDs that contain the "special" UNIX shell $ or \, account conversion may fail. The solution to this problem is to change the record IDs in PI/open before you begin the conversion, and change them back in UniVerse when conversion is complete (see also GTAR 15780).

ISOMODE 2

If you are running with the UniVerse configurable parameter ISOMODE set to 2 (default value is 1), several System Administration BASIC routines will fatal due to updating an administrative file without previously setting a lock. The menu options include Add Accounts, Modify Accounts, Delete Accounts, and Devices (see also GTARs 15280, 15281, 15282, and 15283).

CORE Command on IBM RS/6000

The UniVerse CORE command used to display process memory usage within the UniVerse environment is not supported at this release on the IBM RS/6000.

UVbackup and UVrestore Warnings

Restoring Records in Type 1 and Type 19 Files. When you use the UNIX command line syntax to restore a single record from a type 1 or type 19 UniVerse file, you must specify the full pathname of the record with the *-F* option. If you specify the type 1 or type 19 filename with the *-F* option and the record name with the *-R* option, the record is *not* restored. Note, this is the case only with type 1 and type 19 files (UNIX directories).

UniVerse Lock Table Size

In Release 9.5.1, the size of the lock table has been changed to improve performance. The following UniVerse configurable parameters have been changed:

Parameter	Old Value	9.5.1 Value
GSEMNUM	23	97
GLTABSZ	300	75
RLTABSZ	300	75

UniVerse Disk Space Requirements

Depending on the platform, Release 9.5 of UniVerse can take up to 25% more disk space than Release 8. See Section 1 for specific disk space requirements for Release 9.5.1 on your platform.

Section 1
Quick Installation Procedure

This procedure should be used only by users experienced with the procedure for configuring UNIX and installing UniVerse. For suggestions on the installation, see Sections 2 and 3.

1. The UniVerse release tape has been created with a fixed block size of 512 (8 mm or 1/4" cartridge). To install the release correctly, the tape drive on the installation machine must also be set to a block size of 512. You can use the AIX command *smit* to check the current block size of the tape device and change it to 512 if necessary.
2. Prepare the UniVerse home directory in a file system with 190 MB of free space. The preferred directory is */usr/ardent/uv*. You cannot specify the home directory for UniVerse with a symbolic link, otherwise the license authorization routines fail.
3. Log in as *root* and move to the root directory.
4. Create the UNIX user name *uvsql* if it does not already exist.
5. If this is an update installation, make sure that any optional products (UV/Net, GCI, etc.) installed on your system are deinstalled before proceeding with the following steps.
6. Insert the release media in the appropriate device.
7. Load the *uv.load* script from the release tape by entering:

   ```
   # cpio -ivcBdum uv.load < /dev/rmt0.4
   ```

   Note: For platforms that support multiple types of tape media, please verify that the previously mentioned device name corresponds to the tape device from which you are installing the UniVerse release tape. If different, you must substitute the correct device name in the *cpio* command. You must also make this substitution when prompted by the *uv.load* command which is executed in step 8.

   Or load the *uv.load* script from the CD-ROM by entering:

   ```
   # cpio -ivcBdum uv.load < /mnt/startup.
   ```

Note: This command assumes that the CD-ROM device has been mounted at */mnt* on your system. If your system differs, please replace */mnt* with the appropriate mount point on your system.

8. Load UniVerse by executing the *uv.load* command. Make sure that no one is using UniVerse during the installation procedure.

```
# /uv.load
```

uv.load displays the current settings for the UniVerse home directory and whether *terminfo* should be installed. If the values are set correctly, press Return to initiate the installation.

The *uv.load* command loads the UniVerse release files and runs *uv.install* which installs UniVerse. The installation procedure requires input several times. If you do not know how to respond to a prompt, refer to Section 3. You should usually respond by pressing Return at the prompts to select the default action. You *must* install the UniVerse portion of the *terminfo* entries in order to use the System Administration menu system.

9. If you are installing UniVerse over an earlier UniVerse release, you may see the following message:

```
Unable to get disk shared memory segment: Invalid argument
```

If this happens, shut down and restart UniVerse (see Chapter 3 of *Administering UniVerse* for the procedure). Then proceed to step 10.

10. Change directories to the UniVerse home directory and invoke UniVerse. This is the directory in which UniVerse was installed. The default UniVerse home directory is */usr/ardent/uv*.

```
# cd /usr/ardent/uv
# . ./.profile
```

The pathname of the home directory for UniVerse is stored in the file */.uvhome*. The *.profile* command may contain environment settings in addition to the command that executes the UniVerse command processor.

11. Refer to Section 3 for information on using the Motif-style System Administration menus.

You are asked to enter an authorization code to activate the license. If you did not receive your authorization code with your release media, or if you lose your authorization code, contact your vendor. You should have the serial number and number of authorized users information available before calling.

12. When the authorization completes successfully, the following message appears:

    ```
    License Upgrade is Complete, you will be logged out of
    UniVerse, please shutdown UniVerse and restart.
    ```

    Choose **Close** to return to the UNIX shell prompt.

13. Shut down and restart UniVerse (see Chapter 3 of *Administering UniVerse* for the procedures).

14. If you are using any UniVerse optional products, install them now using the Install package menu in the UniVerse System Administration menu system.

15. Use the menus to configure the spooler and to do any account administration.

Section 2
Power-up and System Startup

Refer to the AIX Release 4.3 manual supplied with your system for information about setting up your machine.

UniVerse Interaction with UNIX Configuration

The parameters mentioned in Section 1 are the minimum needed to run UniVerse. If you are configuring a production system or running a benchmark, make sure that you read technical bulletin 74-0107, *Maximizing Performance for UniVerse Systems*.

As a UNIX process, UniVerse makes demands on the UNIX resources as it executes. These demands can vary greatly depending on the particular UniVerse activity being performed in any one UniVerse process, as well as on the number of UniVerse processes active on the system. As with any UNIX tuning problem, you must use the information provided by performance measurement tools (such as *sar*) or error message information (such as a message that indicates that no more processes are available) to decide how to tune your particular system. Technical bulletin 74-0107 describes the different ways that UniVerse makes demands on the system resources so that your first attempt at tuning can be more accurate.

Technical bulletin 74-0107 suggests values of various tunable parameters on UNIX systems based on UniVerse being the only process on the system that is using that particular resource. If you have other processes on the system that use a particular resource, you must adjust the values to consider the concurrent use of the resource by all such processes.

Technical bulletin 74-0107 uses System V terminology to describe the tunable parameters. You may need to use different mnemonics on your system. The procedures for changing the values of these parameters vary greatly from system to system and are described in the UNIX System Administrator's Guide for your system. *Administering UniVerse* discusses the UniVerse configurable parameters you can use to tune the performance of the system from a UniVerse point of view.

Section 3
Installing UniVerse

This section describes the installation of UniVerse software from the release media. Instructions are given for systems using the Bourne shell as the standard UNIX environment. The C shell can be used as the standard UNIX environment with appropriate changes to the procedure.

Installing UniVerse for the First Time. If you are installing UniVerse for the first time, you must perform the following tasks:

1. Prepare your UNIX system with attention to any special instructions required for execution of UniVerse described in Section 2.
2. The UniVerse release tape has been created with a fixed block size of 512 (8 mm or 1/4" cartridge). To install the release correctly, the tape drive on the installation machine must also be set to a block size of 512. You can use the AIX command *smit* to check the current block size of the tape device and change it to 512 if necessary.
3. When UniVerse runs in server mode, disk shared memory is increased by 84 bytes per UniVerse user and 4 bytes per UV/Net user. When UniVerse runs in device mode, disk shared memory is increated by 156 bytes per UniVerse user and 4 bytes per UV/Net user. Set the SHMMAX parameter to a value appropriate to the number of users on your system.
4. Prepare the UniVerse home directory in a file system with 190 MB of free space. The preferred directory is */usr/ardent/uv*.
5. Install UniVerse and set up UniVerse accounts. This is described in "The UniVerse Installation Procedure."

Installing UniVerse over an Earlier UniVerse Release. If you are currently running a release of UniVerse, then you must:

1. Make sure no one is using UniVerse.
2. Save any of the following files in the UV account directory that you may have modified:
   - *.profile*

- *sample/uv.rc*
- *sample/.profile*
- *sample/terminfo.src*
- VOC
- Any changes to programs in BP or APP.PROGS

3. Deinstall any UniVerse optional products (UV/Net, GCI, etc.) that are installed on an earlier release of UniVerse.
4. Install the UniVerse update. This is described in "The UniVerse Installation Procedure."

The difference between an initial installation and an update is that the update process preserves site-specific files in the UV account, such as the &DEVICE& file, and only cataloged routines delivered with UniVerse are recataloged. User-cataloged routines are left intact in the system catalog.

The UniVerse Installation Procedure

The installation procedure shows you how to:

- Install UniVerse system software on the system
- Authorize the installed license for the correct number of users and expiration date

Overview

This section describes the installation procedure. Specific procedures are in the next section.

UniVerse software is installed on an existing UNIX system in a directory specified during the installation. This directory is referred to as the uvhome directory. The examples in this section use the default for this system, */usr/ardent/uv*; you should substitute the uvhome directory you have chosen. If you are installing an update, the default is the current uvhome directory.

WARNING: The uvhome directory must be specified to the installation routines as a real pathname rather than using a symbolic link on those systems that support symbolic links. If you use a symbolic link, the UniVerse license authorization routines will fail.

UniVerse installation is done while you are logged in as *root*. You use a *cpio* or *tar* command to load a short install script named *uv.load*. You then execute the *uv.load* script to load the files from the installation release media.

The *uv.load* script stops any active UniVerse spooler and removes the shared memory segments used by UniVerse to ensure a valid installation. The spooler must be stopped even for an update install because the restore operation does not overwrite an active file. *uv.load* then loads the files from the release media in the specified directory and executes the *uv.install* script.

The files loaded from the release media are checked to make sure they have a checksum which matches the checksum on the release media. If the checksums do not match, it indicates that the files were not loaded correctly from the release media. You are instructed to reload the groups that were in error. If you have tried several times to reload these groups and still get errors, contact your maintenance vendor for assistance.

The following description summarizes the actions performed by the install script:

1. The directory structure needed to contain UniVerse is created and given the proper permissions. Among the directories created are:

/usr/ardent/uv	The uvhome directory.
/usr/ardent/uv/bin	Contains the executables that make up the UniVerse product.
/usr/ardent/uv/sample	Contains various prototype files.
/usr/ardent/uv/NEWACC	Contains the templates for the supported flavors of the VOC file.
/usr/ardent/uv/terminfo	Contains the UniVerse terminal characteristics database.
/usr/ardent/uv/catdir	The system catalog.

   In addition, the installation procedure loads several UniVerse type 1 files or multiple data files which are implemented as UNIX directories in the uvhome directory (e.g., *BP, BP.O, APP.PROGS,* and *APP.PROGS.O*).

2. The shared memory tables used by UniVerse are initialized and the UNIX initialization script is modified to execute a file *uv.rc* which performs UniVerse initialization.

3. The UniVerse spooler is installed and the spooler daemon is executed. *Administering UniVerse* describes the UniVerse spooler and its installation in detail.

4. The UniVerse terminal definitions are compiled. The script prompts for whether these definitions should be installed. In general you should always install the new definitions unless you have modified any of the supplied definitions without changing their name and you want to preserve the modifications. Installing the UniVerse terminal definitions updates only the UniVerse-specific characteristics kept in */usr/ardent/uv/terminfo*. If you want to update the non-UniVerse-specific characteristics in */usr/lib/terminfo*, you must manually invoke the *uvtic* command with the *-a* option.

   WARNING: If this is an initial installation, you must install the UniVerse terminal definitions and make sure that the UNIX version also exists in order for the System Administration menus to work. If the UNIX version does not exist, use the *-a* option of the *uvtic* command to create it.

5. The SQL catalog is created, if it does not already exist.
6. The UniVerse catalog space is initialized (for initial installation only) and a number of system subroutines are cataloged. For a complete discussion of the initialization of catalog space, see *Administering UniVerse*.
7. The sample shell initialization file *.profile* from the UniVerse sample directory is copied into the uvhome directory. The *.profile* file contains search paths for system commands, default protection for created files, and characteristics of the terminal used for login. For a complete discussion of the *.profile* file, including sample files and how to modify them, see *Administering UniVerse*.

You must activate the UniVerse license or upgrade by entering the authorization code supplied by your vendor. To activate the license, you must log in as *root* and enter the UniVerse account.

You must then enter the authorization information requested by the License Activation screen.

You can then add other accounts to be used in a UniVerse or UNIX environment or perform administration of peripherals such as spooler devices. To perform these tasks you should use the System Administration menus described in *Administering UniVerse*. When you log in to the UV account, you will be in the System Administration menu system. If you exit the menus, you can reenter them by using the LOGIN command.

To exit the System Administration menu system, press the Esc key.

Installing UniVerse

To install UniVerse on the system, follow these steps at the system console. Make the entries shown in bold type, and press the Return key after each entry.

Note: Make sure the kernel has been rebuilt with the parameters specified earlier in this section before proceeding.

1. If you are not already logged in as *root*, enter the following at the `login:` prompt:

   ```
   login: root
   password:
   ```

2. Make certain that you are logged in to the root directory:

   ```
   # cd /
   ```

3. Make sure that no one is logged in to the system before starting the installation. Insert the release media into the appropriate device. (Refer to the hardware instruction manual if you are unfamiliar with the loading procedure.) Load the *uv.load* script from the release tape by entering:

   ```
   # cpio -ivcBdum uv.load < /dev/rmt0.4
   ```

   Note: For platforms that support multiple types of tape media, please verify that the previously mentioned device name corresponds to the tape device from which you are installing the UniVerse release tape. If different, you must substitute the correct device name in the *cpio* command. You must also make this substitution when prompted by the *uv.load* command which is executed in step 4.

   Or load the *uv.load* script from the CD-ROM by entering:

   ```
   # cpio -ivcBdum uv.load < /mnt/startup.
   ```

   Note: This command assumes that the CD-ROM device has been mounted at */mnt* on your system. If your system differs, please replace */mnt* with the appropriate mount point on your system.

4. Execute the *uv.load* script with the release media still in the device:

   ```
   # /uv.load
   ```

   See "uv.load Options" for options that are available to the *uv.load* script.

5. If this is an update installation, you are prompted with the following to verify whether *terminfo* definitions should be recompiled. On an initial install, the

UniVerse *terminfo* definitions have not yet been compiled so this prompt is skipped and the UniVerse *terminfo* definitions are compiled by default.

```
Compiling the uniVerse terminfo definitions will overlay the
descriptions for terminals listed below:

4410            at386       pt200       viewpoint
AT386           att3b1      qt102       viewpoint60
M=              att4410     regent20    vp
Mu              av          regent25    vp60
a210            dialup      regent40    vp60:regent40
a210:adm5       dumb        regent60    vt100
a210:hz1410     fenix       s4          vt100-am
a210:hz1500     gt          sun         vwpt
a210:qt102      hft         sun-cmd     vwpt60
a210:regent25   hz1410      sun-w       wy200
a210:tvi910     hz1500      tvi910      wy200-w
a210:tvi910+    ibm5151     tvi910+     wy50
a210:tvi920     icl6404     tvi920      wy50:hz1500
a210:tvi925     network     tvi925      wy50:tvi910
a210:vp         pc7300      tvi955      wy50:tvi920
adm5            performer   unixpc      wy50:tvi925
at              pt          unknown     wy50:vp

Should the terminfo.src be installed?

Please enter yes to install terminfo.src
```

In general you should reply yes to this question. A menu similar to the following is displayed to verify the default installation options. The menu shows the actual pathnames of the rewind and no-rewind devices.

```
                    UniVerse Installation Options

These are the current settings of the installation options:

1) UniVerse home directory:      /usr/ardent/uv
               (currently: Not Installed)

2) UniVerse-UniData shared directory:
                                 /usr/ardent/unishared (currently:
               (Not Installed)
3) Compile terminfo definitions: true
4) Rewind tape name:             /dev/rmt0.4
5) No-rewind tape name:          /dev/rmt0.5

Enter a field number to change, 'q' to abort installation, or press
<Return> to begin installation of uniVerse:
```

If the values displayed are acceptable, press Return to start the installation of UniVerse, otherwise enter the number of the value you want to change. If you choose 1, you are prompted for the UniVerse home directory. If you choose 2, its value is toggled. If you choose 3 or 4, you are prompted for a new device pathname. You can also enter **q** at this point to quit the installation procedure.

If you don't already have an SQL catalog and there is no user name *uvsql* in the */etc/passwd* file, you see the following message:

```
The user 'uvsql' does not exist. This user is the default owner
of the SQL Catalog. Would you like to:

1). Continue with the installation, making 'root' the default
    owner of the SQL catalog.

2). Suspend the installation so that you can create the 'uvsql'
    user.

3). Stop the installation.

Your choice (Default action is 1):
```

6. The following prompt appears:

```
The following uniVerse groups are available for installation:

MAIN OBJ DEVELOP DOC FILESIZE PORTING UCI IC UOJ

Which groups do you wish to install (press <Return> for all
groups) ?
```

Choose which groups you want to install on your system. The following groups are available for installation on your system:

MAIN	This group is the standard UniVerse environment. It contains the files and programs necessary for running UniVerse. The MAIN group must be installed on your system for UniVerse to run.
OBJ	This group contains object files and archive files that are used to install and link the UniVerse optional product GCI.
DEVELOP	This group contains tools for application development including the BASIC compiler, catalog manipulation commands, and debugging tools. It is not necessary for this group to be loaded to run BASIC programs or cataloged programs.
DOC	This group contains the online help facility for UniVerse and BASIC. Also included is the demonstration account. This group is not necessary for UniVerse to run.

FILESIZE This group contains tools for verifying and adjusting the type, modulo, and separation of UniVerse files. This group is not necessary for UniVerse to run.

PORTING This group contains tools for porting applications from Pick, Reality, and Prime INFORMATION systems to your UniVerse system. This group is not necessary for UniVerse to run.

UCI This group contains the files and programs needed to run UCI. This group is not necessary for UniVerse to run.

IC This group contains the files and programs needed to run interCALL. This group is not necessary for UniVerse to run.

UOJ This group contains the files and programs needed to run UniObjects for Java. This group is not necessary for UniVerse to run.

If you want to install all the groups, simply press **Return** at the prompt, otherwise enter the names of the groups you want to install separated by spaces. You must enter the groups exactly as they appear at the prompt and in the same order. When you have entered all the groups, press **Return** to begin the installation of the groups.

If a group fails to load correctly a message is displayed indicating that the checksums do not verify for the listed groups. You should repeat the installation procedure for those groups that do not verify. When you repeat the installation procedure you should verify that the UniVerse home directory is correct when you are prompted for it. You can repeat the installation procedure later to add groups that you do not install now.

7. If you are installing UniVerse over an earlier UniVerse release, you may see the following message:

```
Unable to get disk shared memory segment: Invalid argument
```

If this happens, shut down and restart UniVerse (see Chapter 3 of *Administering UniVerse* for the procedure). Then proceed to step 8.

8. Change directories to the uvhome directory and invoke UniVerse to activate the license:

```
# cd /usr/ardent/uv
# . ./.profile
```

Make sure that you specify the correct uvhome directory if it is different from */usr/ardent/uv*. The *.profile* shell script is used to invoke UniVerse to ensure that the environment variables necessary for proper UniVerse operation (especially PATH) are set.

9. Enter the license activation information as requested by the prompts. The information you must enter is:

   - Serial number
   - Maximum number of local users
   - Expiration date
   - Local authorization code

   If you enter any of the data items incorrectly, the *uvregen* process fails and you return to a shell prompt. To correct, reexecute this step.

   If the data is correct, respond with a **y** to continue with the authorization.

10. When the authorization completes successfully, the following message appears:

    ```
    License Upgrade is Complete, you will be logged out of
    UniVerse, please shutdown UniVerse and restart.
    ```

    Choose Close to return to the UNIX shell prompt.

11. Shut down UniVerse (see Chapter 3 of *Administering UniVerse* for the procedure).

12. Restart UniVerse (see Chapter 3 of *Administering UniVerse* for the procedure).

13. Log in to the UV account. You are placed in the System Administration menu system. This menu system allows you to perform tasks such as adding users or setting up your spooler. See *Administering UniVerse* for complete instructions. To exit the menus, press the Esc key until you get the UniVerse prompt:

    ```
    >
    ```

    To reenter the System Administration menu system, use the command:

    ```
    >LOGIN
    ```

14. To exit the UniVerse environment, enter **Q** at the UniVerse prompt. A standard shell prompt appears.

    ```
    >Q
    #
    ```

15. If the installation was an update to an earlier UniVerse release, each user account VOC file must be updated to the current UniVerse release level. Do this by invoking UniVerse in each user account. When you do this, the following prompt appears:

    ```
    Your VOC is out of date. Update to current release (Y/N)?
    ```

    Entering **Y** at the prompt updates the VOC to the current release level.

Note: The UniVerse LOGTO command does not check the release level of the VOC file when used to enter a UniVerse account. The check is done only when directly invoking UniVerse in a user account. If your application uses LOGTO, you must verify that all user accounts are updated to the current release level before running the application.

16. If you installed UniVerse from CD-ROM, remove the CD-ROM from the device by entering the following:

```
# umount /mnt
```

Examining the Load and Installation Scripts

You can examine the UniVerse load or installation script using the *vi*(1) editor. These scripts are in the directory */usr/ardent/uv* under the names *uv.load* and *uv.install*. You must have superuser privileges to view these files.

uv.load Options

You can use the options to the *uv.load* command to change the installation process. The syntax of the *uv.load* command is:

uv.load {**–defaults**} {**–nochecksum**} {**–nocpio**} {*uvhome*}

–defaults	Specifies that all defaults are to be used—no prompting by the script. This allows for automatic installation.
–nochecksum	Specifies that the checksum step is to be skipped. This should be done only after consulting with Ardent support. If files are really damaged, the installed UniVerse will not execute correctly, with possible damage to files.
–nocpio	Specifies that installation should skip the physical read of the installation media. This can be used to restart installation after files have been loaded.
uvhome	Specifies the directory of the UV account if it is different from either the installed UniVerse or */usr/ardent/uv*.

System Administration Menus

The System Administration menus and data entry screens look and work the same way as Motif menus. For a complete description of these menus, see Appendix A of *Administering UniVerse.*

Section 4
System-Specific Information

MT0 Definition in the &DEVICE& File

The following is the definition of the MT0 entry in the &DEVICE& file. This is the device used to load the release tape.

Field	Contents
ID	`MT0`
Description	`Tape Drive Number 0 (Version 029, 093, or 115)`
Pathname	`/dev/rmt0.5`
Default Blocksize	`512`
Type	`DC`
Access Control File	
Rewind Device Pathname	`/dev/rmt0.4`
No Rewind Device Pathname	`/dev/rmt0.5`
Backup Shell Command	`find $file -print | cpio -ovcB > $tape`
Restore Shell Command	`cpio -ivcdumB $file < $tape`
Skip Forward Command	`tctl -f $tape fsf 1`
Rewind Command	`tctl -f $tape rewind`
Offline Command	`tctl -f $tape rewind`
Read to Write Mode Position	`L`
Close on Read Action	`Y`
Multiple Read at eof Status	`Y`
Account Transfer Block Size	`512`

CD-ROM Definition in the &DEVICE& File

Field	Contents
ID	CDROM
Description	CD-ROM Drive (Version 301)
Pathname	/cdrom
Default Blocksize	8192
Type	CD
Access Control File	
Rewind Device Pathname	/cdrom
No Rewind Device Pathname	/cdrom
Backup Shell Command	find $file -print | cpio -ovcB > $tape/$uvcdi
Restore Shell Command	cpio -ivcdumB $file < $tape/$uvcdi
Skip Forward Command	
Rewind Command	
Offline Command	
Read to Write Mode Position	A
Close on Read Action	Y
Multiple Read at eof Status	Y
Account Transfer Block Size	8192

UniVerse CORE Command

The UniVerse CORE command is not supported at Release 9.5.1 on the IBM RISC System/6000 running AIX Release 4.3.1 or AIX Release 4.3.2.

Tape-Related GTARs

GTAR 7457 Spooling a report to tape does not work if the size of the report is smaller than 4096 bytes. Nothing gets written to tape, and subsequent reports that are larger than 4096 bytes are not written to tape either, unless the device is unassigned and reassigned.

GTAR 8244 Any tape command, such as T.EOD, that causes UNIX to write a fatal error message to the console causes the tape to rewind, leaving the tape positioned at BOT.

System-Specific GTARs at Release 9.5.1

GTAR 15207 When adding a new user through the UniVerse System Administration menus, if you respond with no password, the system still prompts for a password when you log in. AIX requires that a user have a password since a null password is invalid. You must enter a password for a user.

GTAR 22362 On IBM AIX 4.3 for UniVerse 9.4.1.1D the DEFINE.DF produces an incorrect message:

```
*Program "*DEFINE.DF": pc = A98,
Message[8043998Program "*DEFINE.DF": pc = 149C,
Message[8043998Creating file "D_filename" as Type 30.
```

DEFINE.DF does work.

UniVerse GTARs at Release 9.5.1

GTAR 11415 The command UNLOCK GROUP (group #) [ALL, GROUPLOCK, etc.] does not work. No locks are removed.

GTAR 14154 Deinstalling GCI generates the error `Can't open /tmp/pkgobjects` but works fine.

GTAR 15170 The UniVerse System Administration menu option Maintain Devices only allows for the input of up to 23 characters for a driver name. The *sp.config* file allows up to an 128-character driver name but only 23 characters can be input through the menus. If you require more than 23 characters, use a UNIX editor on the *sp.config* file to add the entry.

GTAR 15865 In the Transaction Logging menu option Activate Account, the prompt is misleading in that a user expects to enter an account name. However, the prompt is expecting a select list name that contains a list of files to activate in the account.

GTAR 16287 The UVrestore menu does not accept the new B option. This option is valid when used at the UNIX command level.

GTAR 16834 When using T.READ to display the contents of a tape, if NLS is active and the byte count of a character is not equal to the display length then the display can become corrupted. This will only happen with NLS active and multi-byte data on the tape.

GTAR 17536 UV/Net behaves inconsistently on some platforms when listing a file with secondary indexes on a remote system when the secondary index is disabled. In some cases the index is not used and the file is read directly. The command LIST *remotefile* WITH INDEX = *'value'* on the first attempt ignores the index and reads the file directly. Subsequent queries correctly use the index unless explicitly ignored with the NO.INDEX keyword.

GTAR 17878 On the Stratus Continuum and the Tandem, if you add an account through the System Administration menus and use the OTHER option from the ASSIGN screen, the owner and group permissions of an existing directory are not modified.

GTAR 19104 When using the EVERY *columnname* SAID or EVERY *columnname* SPOKEN clauses in a multivalued-to-multivalued comparison with an associated multivalued column, the check constraint for multivalued columns doesn't insert data. There is also a problem selecting data with SAID or SPOKEN from a table that does not contain the check constraint.

GTAR 21007 The *uvrestore* fix under GTAR 20150 was implemented incorrectly. The functions iftoef and eftoif should have been called but instead were included verbatum inside the *uvbackup.c* module. Further modifications to the iftoef and eftoif functions will not be available to the *uvrestore* process because of this. Need to change *uvrestore* to call these functions.

GTAR 21112 The functional spec for NLS locales says that the MT conversion code should allow the HMS separator to be any single nonnumeric character, which can be enclosed in single or double quotation marks. As implemented today, if NLS is off, it can be any character but cannot be quoted. With NLS on, it can be any character enclosed in single or double quotes. No check is made to see if the character is nonnumeric in either case.

GTAR 21153 BCI must reject connections to ODBC data sources when NLS is ON (because BCI maps user data to UTF8 before writing and from UTF8 after reading, so data other than 7bit ASCII is changed)...NOTE: needs reconsideration; may be ok

GTAR 21197 The CURR_SYMBOL, POS_SIGN and NEG_SIGN fields of a locale must all contain unique characters. If they do not, it is impossible to distinguish the sign from the currency symbol, meaning that ICONV of currency values can fail. The solution is to modify NLS.BUILD to verify that all the characters chosen are unique.

GTAR 21269 Install (or possibly just reinstall) of NLS on NT does not set the terminal map correctly for the console. You can specify the map you want during the install, but it seems to be ignored.

GTAR 21370 The LISTU command does not display the date correctly when running on NT with a multibyte character set. The code does not take NLS into account and the month displays with unmappable characters.

GTAR 21485 *uvrestore* will not restore a dynamic file with a multibyte name if the file already exists on disk and the user is attempting a full restore. Also, the .Type1 and .uvnlsmap files associated with Type1 files are not being removed and restored properly.

GTAR 21486 CREATE.FILE <multibyte name> does not work when the file already exists on disk but does not have a corresponding VOC record. The command fails with the error messages: Maximum file number has been reached. ***Processing cannot continue***

GTAR 21487 ReVise does not display associated multivalued fields properly if these fields contain double-width characters. An extra blank space appears to be printed for each double-width character being displayed.

GTAR 21488 *mkdbfile.c* and *do_mkdb.c* have places where internal and external filenames are not mapped properly when NLS is on.

GTAR 21509 Verbs that provide the BASIC compilation and cataloging environment cannot be used with multibyte filenames or record IDs. At present only ASCII filenames and record IDs are guaranteed to work.

GTAR 21510 ANALYZE.FILE does not display the pathname of the file correctly when the filename is multibyte. The filename is displayed correctly, however.

GTAR 21511 When building the NLS-DEFAULT locale during an initial install of NLS, you get a message warning that the MNEMONICS map is not loaded and that the locale may not be built correctly if it contains mnemonics. This affects the MONETARY category of NLS-DEFAULT because the international currency symbol is defined as USD<SP>. This is taken as the literal currency symbol—the <SP> should be replaced by a space character but is not. The fix is to change the definition to have a real space rather than <SP> in the definition.

GTAR 21542 BCI/UCI server ignores bad locale request and accepts connection instead of returning an error and rejecting the connection.

GTAR 21544 NLS enabled BCI fails to reject connections to non-NLS servers (before 9.4 or with NLS off) when locale is other than WIN:0409, US-ENGLISH, or OFF.